I claim:

1.   A device for detecting data packets transmitted not reliably without errors in a radio receiver, particularly in a mobile radio receiver, comprising

-      a convolutional decoder for decoding the received data packets,

-      means for assessing the quality of the decoded data packets with respect to their freedom from errors,

-      comparison means which compare parameters characteristic of the quality of the decoder data packets with threshold values, the data packets being accepted, discarded or modified in dependence on the result of the comparison,

-      means for determining whether the current transmission channel is a rapidly varying transmission channel or a slowly varying transmission channel, and

-      means for establishing the threshold values for the comparison means in dependence on whether the current transmission channel is a rapidly varying transmission channel or a slowly varying transmission channel.

2.   The device as claimed in claim 1, wherein the means for assessing the quality of the decoded data packets comprise a convolutional coder for recoding the decoded data.

3.   The device as claimed in claim 2, wherein the means for assessing the quality of the decoded data packets comprise at least one XOR operation by means of which the deviations between the received data and the data recoded by the convolutional coder can be detected.

4.   The device as claimed in claim 2, wherein the means for assessing the quality of the decoded data packets comprise an error counter which counts the number of errors as the number of deviations between the received data and the data recoded by the convolutional coder.

5.   The device as claimed in claim 4, wherein the comparison means compare the number of errors determined by the error counter with at least one threshold value, the data packets being accepted, discarded or modified in dependence on the result of the comparison.

6.   The device as claimed in claim 1, wherein the determining means determine by means of the distribution of the frequencies of the various numbers of errors determined for the data packets whether the current transmission channel is a rapidly varying transmission channel or a slowly varying transmission channel.

7.   The device as claimed in claim 1, wherein the determining means determine by means of the proportion of error-free data packets whether the current transmission channel is a rapidly varying transmission channel or a slowly varying transmission channel.

8.   The device as claimed in claim 1, wherein the means for determining whether the current transmission channel is a rapidly varying transmission channel or a slowly varying transmission channel comprise a zero-metric counter which counts the error-free data packets within a predetermined number of data packets.

9.   The device as claimed in claim 1, wherein the means for determining whether the current transmission channel is a rapidly varying transmission channel or a slowly varying transmission channel comprise at least one comparator which compares the number or the proportion of error-free data packets with a zero-metric limit value, the result of the comparison being used for determining whether a rapidly varying transmission channel or a slowly varying transmission channel is present.

10. The device as claimed in claim 9, wherein in the case where the number or the proportion of error-free data packets is above the zero-metric limit value, a higher quality of received data packets with respect to their freedom from errors is demanded than for the case where the number or the proportion of error-free data packets is below the zero-metric limit value.

11. The device as claimed in claim 9, wherein in the case where the number or the proportion of error-free data packets is above the zero-metric limit value, the threshold values for the comparison means are set to smaller values than for the case where the number or the proportion of error-free data packets is below the zero-metric limit value.

12. The device as claimed in claim 1, wherein the comparison means for determining data packets having a high degree of errors perform a comparison between the parameters characteristic of the quality of the data packets and a first threshold value, and the comparison means for determining data packets having a lower degree of errors perform a comparison between the parameters characteristic of the quality of the data packets and a second threshold value which is smaller than the first threshold value.

13. The device as claimed in claim 1, wherein the transmission channel is a half-rate channel and, in particular, a half-rate voice channel.

14.   A mobile radio receiver which comprises a device for detecting data packets transmitted not reliably without errors in a radio receiver comprising

-    a convolutional decoder for decoding the received data packets,

-    means for assessing the quality of the decoded data packets with respect to their freedom from errors,

-    comparison means which compare parameters characteristic of the quality of the decoder data packets with threshold values, the data packets being accepted, discarded or modified in dependence on the result of the comparison,

-    means for determining whether the current transmission channel is a rapidly varying transmission channel or a slowly varying transmission channel, and

-    means for establishing the threshold values for the comparison means in dependence on whether the current transmission channel is a rapidly varying transmission channel or a slowly varying transmission channel.

15. A method for detecting data packets transmitted not reliably without errors in a radio receiver, particularly in a mobile radio receiver, comprising the following steps:

a) determining whether a rapidly varying transmission channel or a slowly varying transmission channel is present;

b) assessing the quality of the decoded data packets with respect to their freedom from errors;

c) establishing threshold values for the required quality of the data packets in dependence on the type of transmission channel determined in step a);

d) comparing parameters characteristic of the quality of the decoded data packets determined in step b) with the established threshold values; and

e) accepting, discarding or modifying the data packets in dependence on the result of the comparison.

16. The method as claimed in claim 15, wherein in step d),·the number of errors determined for each data packet is compared with at least one threshold value.

17. The method as claimed in claim 15, wherein the distribution of the frequencies of the various numbers of errors determined for that data packets is used for deducing whether a rapidly varying transmission channel or a slowly varying transmission channel is present.

18. The method as claimed in claim 15, wherein the proportion of error-free data packets is used for determining whether a rapidly varying transmission channel or a slowly varying transmission channel is present.

19. The method as claimed in claim 15, wherein the error-free data packets are counted within a predetermined number of data packets, and wherein by comparing the number or the proportion of error-free data packets with a zero-metric limit value,

it is determined whether a rapidly varying transmission channel or a slowly varying transmission channel is present.

20.   The method as claimed in claim 19, wherein in the case where the number or the proportion of error-free data packets is above the zero-metric limit value, a higher quality of the received data packets with respect to their freedom from errors is demanded than for the case where the number or the proportion of error-free data packets is below the zero-metric limit value.

21.   The method as claimed in claim 19, wherein in the case where the number or the proportion of error-free data packets is above the zero-metric limit value, the threshold values for the comparison means are set to smaller values than for the case where the number or the proportion of error-free data packets is below the zero-metric limit value.